

REMARKS

Applicant wishes to thank the Examiner for the telephone interview on March 6, 2007. In the interview *Young* was discussed, but no agreement was reached on the allowability of the claims. Applicant has incorporated the suggestion made by the Examiner in the current claims and it is believed the claims are now allowable.

Claims 37-59 remain in the application.

The present invention results from the discovery that by transmitting a program and a graphical-interactive-picture-structure specification data together, graphical interactive screens can be more easily displayed on the graphical display apparatus. (Spec., Page 8, Lines 3-5; Page 8, Line 19 – Page 9, Line 2).

The Office Action rejected Claims 37-59 under 35 U.S.C. §102(e) as being anticipated by *Young et al.* (U.S. 5,479,268, hereinafter “*Young*”).

The present invention aims to more easily display graphical interactive screens on a graphical display apparatus. It accomplishes this by utilizing a program transmitter 5001 and program receiver 5002. (Fig. 50). The program transmitter 5001 includes a program transmission unit 5010 and an information receipt unit 5019 (Page 89, Lines 20-21; Fig. 50). The program transmission unit 5010 multiplexes an information supply program and the data specifying the structure of an interactive screen and transmits the multiplexed signal to the program receiver 5002. (Page 89, Line 22 – Page 90, Line 19; Fig. 50).

The program receiver 5002 includes a signal receipt unit 5011, a signal separation unit 5012, a display object storage unit 5013, an interactive screen generation unit 5014, a display unit 5015, a RM signal receipt unit 5016, an information transmission unit 5017, and a basic action object storage unit 5018. (Page 90, Lines 8-13; Fig. 50).

The signal receipt unit 5011 receives either the multiplexed signal containing the information supply program and the data specifying the structure of the interactive screen or just the information supply program from the program transmission unit 5010. The signal receipt unit 5011 transmits the same to the signal separation unit 5012. (Page 90, Lines 14-19; Fig. 50).

The signal separation unit 5012 then determines whether the signal that the signal receipt unit received is a multiplex signal or not. If it is a multiplexed signal, the signal separation unit 5012 separates the received signal into two signals: (1) the information supply program signal; and (2) the interactive screen structure specification data signal. The information supply program signal is transmitted to the display unit 5015 while the interactive screen structure specification data signal is transmitted to the interactive screen generation unit 5014. If the signal is only the information supply signal, the signal separation unit 5012 sends the signal to the display unit 5015. (Page 90, Line 20 – Page 91, Line 6; Fig. 50).

The display object storage unit 5013 stores file names in relation with the bit map data. The file names are used to discriminate the objects, or the basic elements composing the interactive screen, and the bit map data represent the shape of each object. (Page 91, Lines 7-11; Fig. 50).

The interactive screen generation unit 5014 includes a first receipt unit and a second receipt unit. The first receipt unit receives the interactive screen structure specification data signal from the signal separation unit 5012 while the second receipt unit receives the signal from the RM signal receipt unit 5016. The interactive screen generation unit 5014 also includes a process unit for interpreting the signals received by the first and second receipt units for further processing, and a storage unit, as well as a display control unit for having the display unit 5015 display the interactive screen image.

The interactive screen structure specification data received by the first receipt unit comprises the following definitions:

- 1) a class definition including class attribute information;
- 2) a panel definition including panel information;
- 3) a box definition including box information;
- 4) a button definition including button information;
- 5) action definition including action information;
- 6) a display candidate definition including display candidate information; and
- 7) a shape definition including shape information.

(Page 92, Line 9 – Page 93, Line 4).

Using the information interactive screen structure specification data, the process unit retrieves the relevant bit map data from the storage unit and transmits them and the display notice to the display control unit. The display control unit then has the display unit 5015 display the interactive screen on the window. (Page 100, Lines 22-26; Fig. 50, 63).

“An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention. See *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 678, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).”

Young seeks to improve the display of television program listings. It utilizes three columns 28 of one-half duration and twelve rows 30 of program listings. (Col. 4, Lines 37-60; Fig. 1). Some programs overlap two or more columns 28 because of their length. Rather than having the cursor move from program to program, the cursor 32 instead moves in half hour increments. (Col. 4, Lines 37-60; Fig. 1). However, when the cursor lands on a half-hour cell, it

highlights the program associated with that cell via a conventional offset shadow 34, including all of the time slots it utilizes. However, the cell where the cursor 32 resides is portions 35 of the black bar outside the current underlying position are segmented, while the current position is painted solid. (Col. 5, Lines 7-13; Fig. 1).

Young can be used with television schedule systems/tape controllers 180 and 182 (Col. 12, Lines 39-43; Figs. 22A, 22B). Programmable tuner 202 receives a TV signal from antenna 200 and/or cable input 205. Tuner output 216 goes to a vertical blanking interval (VBI) decoder 222, which may be a closed caption decoder or a high speed teletext decoder. Listing information and cable channel assignment data are transmitted over the VBI. (Col. 12, Lines 53-61; Figs. 22A, 22B). When an update is required, programmable tuner 202 will receive a VBI signal which is processed by CPU 228. The listing data is stored in schedule memory 232, while the cable channel assignment data is stored in cable-specific RAM memory 238. The cable channel assignment data is used to convert generic TV source names such as HBO, to channel assignments for the specific cable system. (Col. 12, Line 62 – Col. 13, Line 2, Figs. 22A, 22B). When a “What’s on TV request” occurs, the listing stored in schedule memory 232 is retrieved, processed by CPU 228, and outputted to video display generator 224. (Col. 13, Lines 8 – 13, Figs. 22A, 22B).

Young fails to disclose “signal receipt means for receiving a signal transmitted from the program transmitter, the signal being a multiplex signal including a program and a graphical-interactive-picture-structure specification data specifying, by a script, a structure of the graphical interactive picture.” *Young* only discloses receiving listing information and cable channel assignment data. The listing information is simply what television shows occur at what time. There is no indication that the listing information specifies “a structure of the graphical

interactive picture” or how the display of information is generated. In contrast, the present invention discloses “a graphical-interactive-picture-structure specification data specifying, by a script, a structure of the graphical interactive picture.” The graphical-interactive-picture structure specification data comprises the following definitions:

- 1) a class definition including class attribute information;
- 2) a panel definition including panel information;
- 3) a box definition including box information;
- 4) a button definition including button information;
- 5) action definition including action information;
- 6) a display candidate definition including display candidate information; and
- 7) a shape definition including shape information.

(Page 92, Line 9 – Page 93, Line 4).

Furthermore, cable channel assignment data in *Young* is not “a program” in the present invention. The cable channel assignment data in *Young* is used to convert generic TV source names such as HBO, to channel assignments for the specific cable system. (Col. 12, Line 62 – Col. 13, Line 2, Figs. 22A, 22B). In contrast, in the present invention “a program” relates to programs such as a television program as opposed to information that can be used to convert generic TV source names to channel assignments. (Page 4 Line 6 – Page 7, Line 18, Page 8, Line 19-21).

Young fails to expressly disclose “storage means for storing a plurality of basic picture elements in advance, the plurality of basic picture elements being figures composing the graphical interactive picture.” The Office Action cites to memory 232 as the “storage means for storing a plurality of basic picture elements in advance” and that the listing data is the data

specifying a structure of the graphical interactive picture. However, this storage means stores the basic picture elements such as panel shape 1, box shapes 1-3, and button shapes 1-3 as seen in Figures 51-53. It does not store the “graphical-interactive-picture-structure specification data specifying, by a script, a structure of the graphical interactive picture.” Thus, memory 232 cannot be the “storage means for storing a plurality of basic picture elements in advance” because it stores the listing data. (Col. 12, Lines 64-65; Figs. 22A, 22B).

Young also does not teach or suggest “first graphical interactive picture generation means for generating the graphical interactive picture based on the graphical-interactive-picture-structure specification data signal from the signal separation means by combining the basic picture elements stored in the storage means.” *Young* does not disclose using the graphical-interactive-picture-structure specification data to generate the graphical interactive picture. *Young* only states that “[f]or a What’s on TV request, the listing stored in schedule memory 232 is retrieved, processed by CPU 228, and outputted to video display generator 224.” (Col. 13, Lines 9-11). It does not disclose how the listing is processed by CPU 228 and outputted to video display generator 224. If *Young* wanted to display a series of menu screens including graphical interactive screens with “pictures” a large amount of data including graphical data of the graphical interactive screens would be transmitted from the transmission apparatus to the receiving apparatus.

In contrast, in the present invention, the process unit can retrieve the relevant bit map data from the storage unit based on the graphical-interactive-picture structure specification data and transmits the relevant bit map and the display notice to the display control unit. The display control unit can then have the display unit 5015 display the interactive screen on the window. (Page 100, Lines 22-26; Fig. 50, 63). Thus, by utilizing “a graphical-interactive-picture-structure

specification data specifying, by a script, a structure of the graphical interactive picture” the processor unit can generate the picture without having actual picture data transmitted to it. Instead, the processor unit can generate the picture from the appropriate bitmaps already stored in the storage unit. This requires less data transmission and to the program receiver to generate the graphical interactive picture, which in turn enables a narrow broadcast band to be used in the multiplex broadcasting.

Thus, the present invention has novelty and inventiveness over *Young*.

With respect to Claim 49, all arguments for patentability with respect to Claim 37 are repeated and incorporated herein.

Furthermore, *Young* does not include the feature of “a display unit displaying the graphical interactive picture generated by the first graphical interactive picture generation unit and a program picture from the program signal.” The Office Action cited the cable channel assignment data as the “program.” However, the cable channel assignment data is not displayed. It is only used to convert generic TV source names such as HBO, to channel assignments for the specific cable system. (Col. 12, Line 62 – Col. 13, Line 2, Figs. 22A, 22B). In contrast, in the present invention, the program signal is sent to the display unit 5015 so that it can be displayed. (Page 90, Lines 22 – 26, Fig. 50).

Thus, Claim 49 has novelty and inventiveness over *Young*.

With respect to Claim 41, *Young* does not teach or suggest “an interactive signal transmission unit for transmitting the input manipulation accepted by the manipulation acceptance unit to the second graphical interactive picture generation unit as an interactive signal.” The Office Action cites to CPU 228 as the “interactive signal transmission unit.” However, in the present invention, the information transmission unit 5017, transmits interactive

screen data transmitted from the IS generation unit 5014 to the information receipt unit 5019 of the program transmitter 5001. (Spec., Page 102, Lines 14-18). This can be used for example to determine and count the number of correct answers in an interactive program. (Spec, Page 111, Line 25 – Page 112, Line 8). There is no indication that the CPU transmits an interactive signal from the IS generation unit to the information receipt unit of the program transmitter.

Thus, Claim 41 has novelty and inventiveness over *Young*.

With respect to Claim 46, *Young* fails to disclose wherein the “graphical-interactive picture-structure specification data further includes a class definition including a plurality of pieces of class attribute information.” The Office Action cites to the “major themes” and “topics” as the class definition including a plurality of pieces of class attribute information. However, the major themes and topics only describe the thematic attributes of the TV show or movies. In the present invention, the “class definition including a plurality of pieces of class attribute information” defines attributes for each class (group) of the objects forming the interactive screen as seen in Figure 54. For example, “<PANEL SHAPE = PANEL_SHAPE> QUIZ1” defines an object belonging to the panel class. Thus, the “class definition” in the present invention deals with the structural attributes of the objects that form the interactive screen whereas *Young* deals with the thematic attributes of the TV show or movies.

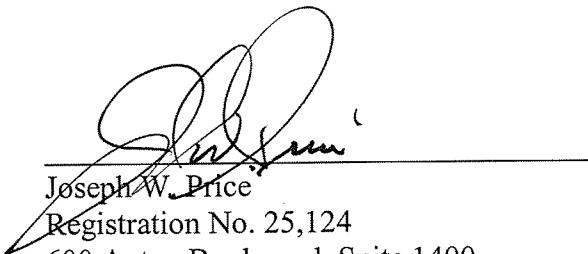
Thus, Claim 46 has novelty and inventiveness over *Young*.

In view of the amendments to the drawings and the above remarks, it is believed the case is now in condition for allowance and early notification of the same is requested.

If the Examiner believes a telephone conference would assist in the prosecution of the matter, the undersigned attorney can be contacted at the listed telephone number.

Very truly yours,

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